

```
void start_read( ){
    enter(IM);
    if(wc > 0)
        wait(R, R_count, IM);
    rc++;
    signal(R, R_count, IM);
    leave(IM);
}
```

```
void start_write( ){
    enter(IM);
    wc++;
    if(rc > 0 || wc > 1)
        wait(W, W_count, IM);
    leave(IM);
}
```

```
void end_read( ){
    enter(IM);
    rc--;
    if(rc == 0)
        signal(W, W_count, IM);
    leave(IM);
}
```

```
void end_write( ){
    enter(IM);
    wc--;
    if(wc > 0)
        signal(W, W_count, IM);
    else
        signal(R, R_count, IM);
    leave(IM);
}
```

```
process P1( ) {
    ...
    read-write.start_read( );
    {read};
    read-write.end_read( );
    ...
}
```

```
process P2( ) {
    ...
    read-write.start_write( );
    {write};
    read-write.end_write( );
    ...
}
```